



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/992,013	11/26/2001	Noriyuki Tsuboniwa	Q67258	5840

23373 7590 02/10/2004
SUGHRUE MION, PLLC
2100 PENNSYLVANIA AVENUE, N.W.
SUITE 800
WASHINGTON, DC 20037

EXAMINER

SELLERS, ROBERT E

ART UNIT	PAPER NUMBER
----------	--------------

1712

DATE MAILED: 02/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/992,013

Applicant(s)

TSUBONIWA ET AL.

Examiner

Robert Sellers

Art Unit

1712

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4-8, 10, 11, 13 and 14 is/are rejected.
- 7) ☒ Claim(s) 3, 9 and 12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4/10/02 6) ☐ Other:

Art Unit: 1712

The election without traverse in the response filed September 15, 2003 of the polyester polyol (A1) of Preparation Example 2 (specification, page 30) derived from polybutadiene dicarboxylic acid and 2-butyne-1,4-diol as well as the sulfonium and propargyl groups-containing resin (B) of Preparation Example 1 (specification, page 30) prepared from a cresol novolak epoxy resin, propargyl alcohol, linseed oil and 1-(2-hydroxyethylthio)-2-propanol is acknowledged. All of the currently active claims 1-14 are directed to the elected species.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1, 2, 4-8, 10, 11, 13 and 14 are rejected under 35 U.S.C. 102(a) as being anticipated by Sakamoto et al. Patent No. 6,168,864.

Example 3 (col. 11) shows a cationic (col. 1, lines 55-61) electrocoating composition comprising 29.4% by weight of a propargyl-containing aliphatic curing agent of Production Example 4 (col. 10) derived from pentaerythritol tetraglycidyl ether and 32.5% by weight of propargylic acid within the ambit of claimed polyester polyol resin (A1) due to the presence of multiple ester and hydroxyl groups resulting from the reaction of the carboxyl group of the propargylic acid with the glycidyl groups of the tetraglycidyl ether.

Art Unit: 1712

The hydroxyl- and propargyl-functional polyester is combined with the sulfonium- and propargyl-containing polybutadiene of Production Example 3 (col. 10) corresponding to claimed resin (B) obtained from epoxidized polybutadiene, propargylic acid and thiodiethanol.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 4-8, 10, 11, 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakamoto et al. Patent No. 6,262,146 and Kawakami et al.

Sakamoto et al. discloses a cationic electrocoating formulation (col. 2, lines 19-43) comprising a sulfonium-, propargyl- and long-chain fatty acid-containing resin (col. 13, Production Example 2) conforming to claimed resin (B) prepared from a cresol novolak epoxy resin, propargyl alcohol, linolic acid and 1-(2-hydroxyethylthio)-2-propanol (col. 8, lines 27-28) blended with the reaction product of propargyl alcohol and a polyepoxide (col. 10, lines 14-18) encompassed by claimed polyester polyol (A1) due to the presence of multiple ester and hydroxyl groups resulting from the reaction of the carboxyl group of the propargylic acid with the glycidyl groups of the polyepoxide.

Art Unit: 1712

Kawakami et al. espouses a cationic electrocoating obtained from a sulfonium- and propargyl-epoxy resin (cols. 11-12, Production Example 2) via the reaction of a cresol novolak epoxy resin, propargyl alcohol and 1-(2-hydroxyethylthio)-2-propanol (col. 6, lines 51-52) embraced by claimed resin (B) admixed with the reaction product of propargyl alcohol and a polyepoxide (col. 7, lines 46-51) encompassed by claimed polyester polyol (A1) due to the presence of multiple ester and hydroxyl groups resulting from the reaction of the carboxyl group of the propargylic acid with the glycidyl groups of the polyepoxide.

Although the claimed polyester polyol (A1) is not exemplified, it would have been obvious to mix the propargyl alcohol-polyepoxide reaction products disclosed in Sakamoto et al. and Kawakami et al. with the sulfonium- and propargyl-epoxy resins in order to optimize the curability.

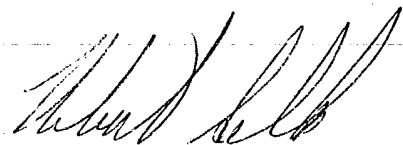
Claims 3, 9 and 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 3 and claims 9 and 12 dependent thereon require resin (A) to be produced from a polybutadiene derivative which is not recited in the cited prior art. There is no motivation to employ such a resin over the propargyl alcohol-polyepoxide reaction products of the Sakamoto et al. patents and Kawakami et al.

(571) 272-1093 (Fax no. (703) 872-9306)

rs

12/15/03



ROBERT E. SELLERS II
PRIMARY EXAMINER